

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): M. MASUDA et al  
Serial No.: 10/743,882  
Filed: December 24, 2003  
For: A SEMICONDUCTOR DEVICE AND A METHOD OF  
MANUFACTURE  
Group: 2818  
Examiner: T. NGUYEN

**LETTER RE SUBMISSION OF POWER OF ATTORNEY AND  
CORRESPONDENCE ADDRESS INDICATION FORM**

**MS: PATENT APPLICATIONS**

January 12, 2004

Commissioner For Patents  
POB 1450  
Alexandria, VA 22313-1450

Sir:

In the matter of the above-identified application, the assignees of the above-identified application are submitting herewith a listing of registered attorneys who are members of the below-named Law Firm to be included in the list of practitioners in connection with the above-identified application and all continuing applications thereof. A statement under 37 CFR §3.73(b), signed and dated by the authorized individuals of the named assignees, is enclosed herewith, as is required. True copies of the originally executed assignment and of the official Notice of Recordation of Assignment Document directed thereto are enclosed herewith as a showing that the referred-to assignees in the statement under 37 CFR §3.73(b) relate to the assignees named in the recorded assignment.

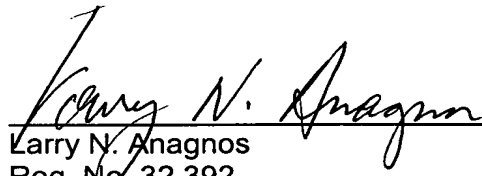
As is stated in the statement under 37 CFR §3.73(b), accompanying the

attached Power of Attorney, the second named assignee of the assignment, i.e., **Akita Electronics Co., Ltd.** has changed its name to **Akita Electronics Systems Co., Ltd.** As evidence of this, enclosed herewith also is a true copy of the registry book directed to the official change in name of Akita Electronics Co., Ltd. to Akita Electronics Systems Co., Ltd., along with an English translation thereof, the date of registration of the official change of name in that company having been effected on April 1, 2002.

Acceptance and formal entry therefor of this paper and attachments thereto is respectfully requested. (Incidentally, a similar paper including similar attachments thereto was recently filed in the USPTO, with regard to the prior, allowed parent application Serial No. 10/194,224, filed July 15, 2002.)

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the Deposit Account of Antonelli, Terry, Stout & Kraus, LLP, Dep. Acct. No. 01-2135 (501.39155VC2), and please credit any excess fees to such deposit account.

Respectfully submitted,  
**ANTONELLI, TERRY, STOUT & KRAUS, LLP**

  
\_\_\_\_\_  
Larry N. Anagnos  
Reg. No. 32,392

LNA/dks  
703-312-6600  
Attachments: As Stated



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APRIL 16, 2001

PTAS  
ANTONELLI, TERRY, STOUT & KRAUS, LLP  
GREGORY E. MONTONE  
1300 NORTH SEVENTEENTH STREET  
SUITE 1800  
WASHINGTON, VA 22209



\*101605806A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 01/26/2001

REEL/FRAME: 011483/0521  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

MASUDA, MASACHIKA

DOC DATE: 09/06/2000

ASSIGNOR:

USAMI, TOSHIHIKO

DOC DATE: 09/06/2000

ASSIGNEE:

HITACHI, LTD.  
6, KANDA SURUGADAI 4-CHOME,  
CHIYODA-KU  
TOKYO, JAPAN

ASSIGNEE:

AKITA ELECTRONICS CO., LTD.  
64, TENNO AZANAGANUMA, TENNOCHO  
MINAMIAKITA-GUN AKITA, JAPAN

SERIAL NUMBER: 09769359

PATENT NUMBER:

FILING DATE: 01/26/2001

ISSUE DATE:

011483/0521 PAGE 2

JEFFREY OLSEN, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

02-06-2001

Docket No.: 501.39155X00

ET

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

101605806

To the Honorable Commissioner of Patents and Trademarks. I have received the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Masachika MASUDA, Toshihiko USAMI

1-26-01

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Execution Date: September 6, 2000

## 2. Name and address of receiving party(ies):

Name: Hitachi, Ltd.

Street Address: 6, Kanda Surugadai 4-chome, Chiyoda-ku

City: Tokyo:

Country: Japan

Additional name(s) & address(es) attached? ☒ Yes ☐ No

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: September 6, 2000

A. Patent Application No.(s)

B. Patent No.(s)

09/769.359

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: ANTONELLI, TERRY, STOUT &amp; KRAUS, LLP

Internal Address:

Street Address: 1300 North Seventeenth Street  
Suite 1800

City: Arlington State: VA Zip: 22209

## 6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41) .....\$40.00

- ☒ Enclosed  
☒ Any deficiencies may be charged to deposit account  
☐ Authorized to be charged to deposit account

## 8. Deposit account number: 01-2135

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

## 9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

Gregory E. Montone

Name of Person Signing

Attorney Registration No. 28,141

Total number of pages including cover sheet, attachments, and document: 3

Signature

22973

January 26, 2001

Date

OMB No. 0651-0011 (exp. 4/94)

01/30/2001 AZERGAM1 00000028 09769359

02 FC:581

40.00 OP

Name: Akita Electronics Co., Ltd.

Address: 64, Tenno Azanagnuma, Tennocho, Minamiakita-gun Akita, Japan

# ASSIGNMENT

( 譲渡証 )

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by HITACHI, LTD. and Akita Electronics Co., Ltd., corporations organized under the laws of Japan, located at 6, Kanda Surugadai 4-chome, Chiyoda-ku, Tokyo, Japan, and 64, Tenno Azanagunuma, Tennocho, Minamiakita-gun, Akita, Japan, respectively, receipt of which is hereby acknowledged I do hereby sell and assign to said HITACHI, LTD. and Akita Electronics Co., Ltd., their successors and assigns, all my right, title and interest, in and for the United States of America, in and to

## A SEMICONDUCTOR DEVICE AND A METHOD OF MANUFACTURING THE SAME

Invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said HITACHI, LTD. and Akita Electronics Co., Ltd., their successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said HITACHI, LTD. and Akita Electronics Co., Ltd.

Signed on the date(s) indicated aside signatures:

INVENTOR(S)

(発明者フルネームサイン)

Date Signed

(署名日)

1) Masachika Masuda (Masachika MASUDA)

6 / September / 2000

2) Toshihiko Usami (Toshihiko USAMI)

6 / September / 2000

3) \_\_\_\_\_

\_\_\_\_\_

4) \_\_\_\_\_

\_\_\_\_\_

5) \_\_\_\_\_

\_\_\_\_\_

6) \_\_\_\_\_

\_\_\_\_\_

7) \_\_\_\_\_

\_\_\_\_\_

8) \_\_\_\_\_

\_\_\_\_\_

9) \_\_\_\_\_

\_\_\_\_\_

10) \_\_\_\_\_

\_\_\_\_\_



**POWER OF ATTORNEY  
and  
CORRESPONDENCE ADDRESS  
INDICATION FORM**

Application Number	10/194,224 & all continuing applications.
Filing Date	July 15, 2002
First Named Inventor	MASUDA, MASACHIKA
Title	A SEMICONDUCTOR DEVICE AND A METHOD OF MANUFACTURE
Art Unit	2818
Examiner Name	T. NGUYEN
Attorney Docket Number	501.39155CX1

I/We hereby appoint:

☒ Practitioner(s) named below.

Name	Registration Number
Donald R. Antonelli	20,298
Melvin Kraus	22,486
William I. Solomon	28,585
Gregory E. Montone	28,141
Ronald J. Shore	28,577
Donald E. Stout	28,422
Alan E. Schiavelli	32,087
Carl I. Brundidge	29,621
Paul J. Skwierawald	32,173
Hung H. Bui	40,415
Alfred A. Stadnicki	30,226

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:

☐ The address associated with the above-mentioned Customer Number:

OR

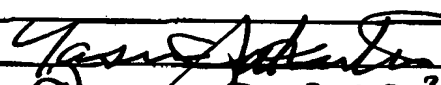
☒ The address associated with Customer Number:

020457

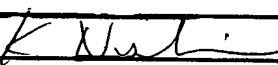
We are the:

☒ Assignees of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

**SIGNATURE of Applicant or Assignee of Record -- HITACHI, Ltd.**

Name	Yasuo SAKUTA		
Signature			
Date	Dec. 25, 2003	Telephone	

**SIGNATURE of Applicant or Assignee of Record -- AKITA ELECTRONICS SYSTEMS CO., Ltd.**

Name	Kotaro NISHIMURA		
Signature			
Date	Dec. 22, 2003	Telephone	

A total of one (1) form is submitted.

**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: MASUDA et al, MasachikaApplication No./Patent No.: 10/184,224Filed/Issue Date: July 15, 2002Entitled: A SEMICONDUCTOR DEVICE AND A METHOD OF MANUFACTURING THE SAME1) HITACHI, LTD.; 2) AKITA ELECTRONICS SYSTEMS CO., Ltd., a 1) Corporation; 2) Corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that they are:

1. ☒ the assignees of the entire right, title, and interest; or2. ☐ an assignee of less than the entire right, title and interest.

The extent (by percentage) of its ownership interest is \_\_\_\_\_ % in the patent application/patent identified above by virtue of either:

A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

R

B. ☒ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:1. From: Masachika MASUDA; Toshihiko USAMI To: HITACHI, LTD.; AKITA ELECTRONICS CO., Ltd.  
The document was recorded in the United States Patent and Trademark Office at  
Reel 011483, Frame 0521, or for which a copy thereof is attached.2. From: AKITA ELECTRONICS CO., Ltd. To: AKITA ELECTRONICS SYSTEMS CO., Ltd.  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.☐ Additional documents in the chain of title are listed on a supplemental sheet.☒ Copies of assignments or other documents in the chain of title are attached.

(NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

1) HITACHI, Ltd.Typed or Printed Name: Yasuo SAKUTATitle: \*Date: Dec. 25, 2003Signature: X Yasuo Sakuta\* Executive Officer,  
Intellectual Property Group  
(Authorized Signing Officer)2) AKITA ELECTRONICS SYSTEMS CO., Ltd.Typed or Printed Name: Kotaro NISHIMURATitle: President & Director Date: Dec. 22, 2003Signature: K. Nishimura

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-6199 and select option 2.

Firm Name: Akita Electronics Co., Ltd.

Changed to Akita Electronics Systems Co., Ltd.

on April 1, 2002

(Date of Registration: April 1, 2002)

Location of Head Office:

64, Aza-Naganuma, Tenno, Tennomachi, Minami Akita-gun,  
Akita, Japan

Public Notice:

given in the official gazette.

Amount of each Share of Par-Value Stock:

five hundred yen (¥500)

Total Number of Shares to be Issued:

two-hundred forty thousand (240,000)

four-hundred eighty thousand (480,000)

(changed on June 25, 1982 and registered on July 2, 1982)

nine-hundred sixty thousand (960,000)

(changed on June 27, 1983 and registered on July 5, 1983)

three-million eight-hundred forty thousand (3,840,000)

(changed on June 22, 1990 and registered on June 28,  
1990)

Total Number of Shares Issued; and Amount of Capital:

sixty thousand (60,000);

thirty million yen (¥30,000,000)

a hundred twenty thousand (120,000);  
sixty million yen (¥60,000,000);  
(changed on April 1, 1981 and registered on April 2,  
1981)

two-hundred forty thousand (240,000);  
a hundred twenty million yen (¥120,000,000)  
(changed on July 1, 1982 and registered on July 2, 1982)

four-hundred eighty thousand (480,000);  
two-hundred forty million yen (¥240,000,000)  
(changed on July 1, 1983 and registered on July 2, 1983)

nine-hundred sixty thousand (960,000);  
four-hundred eighty million yen (¥480,000,000)  
(changed on December 1, 1989 and registered on December 4,  
1989)

Reason for and Date of Execution of Registration Form:  
"Establishment"

Registered on April 1, 1969

Firm Name: Akita Electronics Systems Co., Ltd.

Major Business Activities

1. Development, design and sales of semiconductor products.
2. Development, design and sales of software products.
3. Development, design and sales of electronics application system boards and modules.
4. Support in the fields relating to design, development, sales and manufacturing technology of semiconductor products.

5. Any business relating to the preceding items.

Changed on April 1, 2002 and registered on April 1, 2002.

Firm Name: Akita Electronics Co., Ltd.

Changed to Akita Electronics Systems Co., Ltd.

Location of Head Office:

64, Aza-Naganuma, Tenno, Tennomachi, Minami Akita-gun,  
Akita, Japan

Matters Relating to Officers:

Director: Shunji Shimada

Director: Hiroto Nagatomo  
(retired on March 29, 2002 and registered on April 1,  
2002)

Director: Kichiro Ito

(These three persons were reappointed on June 22, 2001  
and were registered on June 27, 2001.)

Director: Shoji Oonishi

Director: Tomoaki Taira

(These two persons were reappointed on June 22, 2001 and  
were registered on June 27, 2001.)

Director: Koji Yamanaka

Director: Masahiro Yamamura

(These two persons were reappointed on June 22, 2001 and were registered on June 27, 2001.)

Representative Director: Shunji Shimada  
27-20, Nukuikitamachi 5-chome,  
Koganei-shi, Tokyo, Japan  
(reappointed on June 22, 2001 and registered on June 27, 2001.)

Auditor: Ichiro Shikamata  
(installed on June 22, 2001 and registered on June 27, 2001.)

Representative Director: Shunji Shimada  
2573-31, Ooaza-Takakuotsu,  
Nasumachi, Nasu-gun, Tochigi,  
Japan  
(address was changed on March 12, 2002 and was registered on April 1, 2002.)

**Firm Name: Akita Electronics Co., Ltd.**

Changed to Akita Electronics Systems Co., Ltd.

Location of Head Office:

64, Aza-Naganuma, Tenno, Tennomachi, Minami Akita-gun,  
Akita, Japan

Other Matters:

Rules concerning restrictions on the transfer of stock:

Transfer of the stock of this company shall require the approval of the board directors.

Number of shares in a unit stock: 100  
(set on April 1, 2002 and registered on April 1, 2002)

Location of Head Office:

85, Aza-Ushirono, Aikawa, Yuwamachi, Kawabe-gun,  
Akita, Japan  
(changed on April 1, 2002; registered and closed on  
April 1, 2002)

This is a certified copy of the closed register.

Date: June 19, 2003

Oga Branch of the Akita Legal Affairs Bureau

Registrar: Tosuke Izumiya

子丰夕電子株式会社

平水船務 14年4月 / 日發更  
平水船務 14年4月 / 日發更

昭和 年 月 日變更

秋田県南秋田郡天王町天王字長沼64番地

昭和三十九年	月	日	變更
昭和三十九年	月	日	登記

昭和	年	月	日變更
昭和	年	月	日登記

公告をする方法  
官報に掲載してする

昭和	年	月	日變更
昭和	年	月	日登記

昭和	年	月	日變更
昭和	年	月	日登録

額面株式1株の金額

昭和	年	月	日	登録
昭和	年	月	日	登録

発行する株式の総数

昭和7年7月25日變更  
昭和57年7月2日登記

昭和八年九月五日登陸

平南 2 年 6 月 2 日變更  
通南 2 年 6 月 8 日登陸

昭和 年 月 日變更  
昭和 年 月 日登記

店县·咨木欄

1

印發商九一

(附·42)



商 号 株式会社アキタ電子システムズ

目 的

1. 半導体の開発、設計、販売
2. ソフトウェアの開発、設計、販売
3. 電子応用システムボード・モジュールの開発、設計、販売
4. 半導体の設計、開発、販売、製造技術に関する支援
5. 上記に関連する一切の業務

平成14年4月1日 変更 平成14年4月1日 第3号

目的欄  
予備欄

3 丁

捺印欄

平成14年4月 / 日 ュ丁捺印

本店 秋田県南秋田郡天王町天王字長沼 64番地

登記簿印

役員欄 14 丁

平成14年8月27日付下除却

**金**

印登商九二

その他の事項

株式譲渡制限の規定

を承認するに、取締役会の株式譲渡を、

受けなければならぬ。

本店 秋田県河辺郡雄和町相川字俊野の番地

平成14年4月18日 豊田市役所

一、単元の株式の数

100株

平成14年4月1日 設定 平成14年4月1日

本店 秋田県冠郡雄和町相川字俊野の番地

平成14年4月18日 移転  
平成14年4月20日 同日開業

これは閉鎖登記簿の謄本である。

平成15年6月19日

秋田地方法務局男鹿出張所

登記官 泉谷 東助

